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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

**MAILED**

Application Number: 09/145,167

DEC 31 2007

Filing Date: September 01, 1998

Appellant(s): FERNANDEZ ET AL.

**GROUP 3600**

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Dennis S. Fernandez  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 09/20/2007 appealing from the Office action mailed 12/27/2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,177,931	Alexander et al	1-2001
5,867,821	Ballantyne et al	2-1999

5,987,519                    Peifer et al                    11-1999

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21, 24, 22, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander et al (US 6,177,931), in view of Ballantyne et al (US 5,867,821) and further in view of Peifer et al (US 5,987,519).

**As per claim 21, Alexander et al discloses:**

an interface for receiving a video stream from the network, (Col. 8, line 66-Co1.9, line 1, viewing user's video interface, in this case the video stream is being received by the television in order for the viewer to view visual data on the television through the viewer's interface);

a controller for causing the video stream to be stored in a digital video recorder, such stored video being accessible for play-back using a software search agent, (Col. 12, lines 11-21, EPG records on recordable digital video discs in this case, the digital video recorder [DVR] can only record its data on digital video media such as digital

video discs [DVDs], also shows that when viewer is ready to view the DVD recording, the viewer can select to view through the EPG); and

a sensor for generating a real-time signal for transmission via the network interface, (Col. 32, lines 51-54, shows the transmission of a television signal in real time along with the message or advertisement, in this case, the sensor is inherent with Alexander et al since in television, specific types of sensors are needed to produce television signals); the real-time signal enabling such set-top apparatus to be classified in a promotional group for targeted messaging, whereby a promotion video stream is directed to the set-top apparatus adaptively in response to the real-time signal, (col. 31 lines 9-14, shows profile program (which collects user profile data) uses autosurfing that can be performed during real-time advertising telecasts, therefore, when the advertising is telecast, these advertisement signals are transmitted to the television for the viewer to be profiled, w/col. 29, lines 22-30, shows more support for viewer profile data to be represented on a real-time basis, w/col. Col. 35, lines 48-50 and lines 53-54, shows collecting viewer profile data and selecting an advertisement is based on the viewer profile data, which represents targeted advertisement, and displaying the selected advertisement on the television screen).

Alexander et al fails to disclose the following, but does disclose a television program interactive program that allows a user to access product information.

However, Ballantyne et al discloses:

the received video stream comprising a biomedical expertise message for clinical diagnosis that is contextually mapped to a patient group by comparing automatically

with an associated value stored in a database a patient diagnosis sensed using the sensor comprising a micromachined transducer coupled to a diagnosed patient, the biomedical expertise message being scheduled for viewing by one or more patient belonging to the patient group, the patient or promotional group determined automatically by software for group analysis overlay that monitors patient sensor or sensor interface to process patient attribute in either group by comparing patient attribute with associated attribute stored In the database (col 9: lines 57-59; col 11: lines 18-20; Abstract, lines 1-16, shows that a patients/medical personnel can interact with the medical information (in this case, the specification of "biomedical" as a type of claim amounts to the recitation of non-functional data; the type of claim has no bearing on the invention as claimed, and thus carries no patentable weight, therefore, the examiner interprets the medical information as biomedical information) network via television set or video monitor, w/col. 9, lines 32-37, shows that the patient is allowed to access clinical data, w/Col. 10, lines 10-20, shows classification of users, also shows that patient record information can be retrieved and made available for viewing at the bedside through the PCS by physician so he can view the patient's symptoms, and enter in observations accordingly, w/col. 18, lines 32-36, shows that the electronic PCS are located at each patient's bedside and allows the patient to communicate with the nursing station server system, (therefore, patient has access to information at the PCS), w/Co1.15, lines 35-39, shows that personal messages are routed to the appropriate medical staff concerning electronic medical records from a master library of updated records, by way of unique one to one relationships established between the users pen

and the PDA each time the PDA is loaded into its docking slot located at a nursing station, its software clock is synchronized with the clock of the master library [represents the value stored in a database], w/col. 11, lines 12-27, shows health record information is accessed from the master library and modified with up-to-date medical diagnostic data by means of the PDA; here, the PCS interfaces with the PDA to register and track patient characteristics and transmits the results back to the master library, which is updated with medical diagnostic data, in this case, the PCS serves as the transducer since it facilitates the out-sourcing of health care, and the patient therefore has access to the diagnosis data since this data is stored in the master library and can be retrieved through the PCS). Ballantyne et al discloses this limitation in an analogous art for the purpose of showing that patient diagnosis data can be accessed in an electronic patient care station environment.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to incorporate biomedical expertise message for clinical diagnosis into an interactive digital television set-top apparatus with the motivation of allowing targeted messaging in a biomedical environment.

Ballantyne et al disclose that the PCS is capable of interfacing with specific external health care monitoring equipment to register and track certain patient characteristic as temperature, pulse rate, etc. (col 11: lines 18-20) Alexander combined with Ballantyne et al does not expressly disclose that the sensor is for measuring or monitoring an organic material of the patient coupled to the sensor transducer that senses the organic material, such that the sensor transducer generates therefrom the

personal biological sensor signal for enabling such patient to be diagnosed via the biomedical expertise message that is adapted to the personal biological sensor signal measurement or monitoring of the organic material as generated by the sensor transducer.

However, Peifer et al disclose that medical devices within the system can include blood pressure devices, thermometers, pulse oximetry devices, electrocardiograms (EKGs)... (col 6: lines 37-40) and the central monitoring station can then process the information to determine which patient caused the information to be sent, the type of diagnostic measurement comprised in the information, and the diagnostic measurement represented by the information. (col 3: lines 62-65)

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Alexander combined with Ballantyne et al to include monitoring a patient's organic material and using that information to cause a diagnoses of the patient. Alexander and Ballantyne et al would be motivated to combine to be able to better care for the patients and respond to patient's changing medical conditions as monitored by the medical devices.

**As per claim 24, Alexander et al discloses:**

receiving a video stream from via a network interface, (Col. 8, line 66-Co1.9, line 1, viewing user's video interface, in this case the video stream is being received by the television in order for the viewer to view visual data on the television through the viewer's interface);

storing the video stream in a digital video recorder for play-back, such stored video being accessible using a software search agent, (Col. 12, lines 11-21, EPG records on recordable digital video discs in this case, the digital video recorder [DVR] can only record its data on digital video media such as digital video discs [DVDs], also shows that when viewer is ready to view the DVD recording, the viewer can select to view through the EPG); and

generating a sensor signal for transmission via the network interface, the signal enabling set-top classification in a promotional group for targeted messaging, whereby a promotion video stream is directed adaptively in response to the signal, (Col. 32, lines 51-54, shows the transmission of a television signal in real time along with the message or advertisement, in this case, the sensor is inherent with Alexander et al since in television, specific types of sensors are needed to produce television signals, w/col. 31 lines 9-14, shows profile program (which collects user profile data) uses autosurfing that can be performed during real-time advertising telecasts, therefore, when the advertising is telecast, these advertisement signals are transmitted to the television for the viewer to be profiled, w/col. 29, lines 22-30, shows more support for viewer profile data to be represented on a real-time basis, w/col. Col. 35, lines 48-50 and lines 53-54, shows collecting viewer profile data and selecting an advertisement is based on the viewer profile data, which represents targeted advertisement, and displaying the selected advertisement on the television screen);

Alexander et al fails to disclose the following, but does disclose a television program interactive program that allows a user to access product information.

However, Ballantyne et al discloses:

the received video stream comprising a biomedical expertise message for clinical diagnosis that is contextually mapped to a patient group by comparing automatically with an associated value stored in a database a patient diagnosis sensed using the sensor comprising a micromachined transducer coupled to a diagnosed patient, the biomedical expertise message being scheduled for viewing by one or more patient belonging to the patient group, the patient or promotional group determined automatically by software for group analysis overlay that monitors patient sensor or sensor interface to process patient attribute in either group by comparing patient attribute with associated attribute stored In the database (col 9: lines 57-59; col 11: lines 18-20; Abstract, lines 1-16, shows that a patients/medical personnel can interact with the medical information (in this case, the specification of "biomedical" as a type of claim amounts to the recitation of non-functional data; the type of claim has no bearing on the invention as claimed, and thus carries no patentable weight, therefore, the examiner interprets the medical information as biomedical information) network via television set or video monitor, w/col. 9, lines 32-37, shows that the patient is allowed to access clinical data, w/Col. 10, lines 10-20, shows classification of users, also shows that patient record information can be retrieved and made available for viewing at the bedside through the PCS by physician so he can view the patient's symptoms, and enter in observations accordingly, w/col. 18, lines 32-36, shows that the electronic PCS are located at each patient's bedside and allows the patient to communicate with the nursing station server system, (therefore, patient has access to information at the PCS),

w/Co1.15, lines 35-39, shows that personal messages are routed to the appropriate medical staff concerning electronic medical records from a master library of updated records, by way of unique one to one relationships established between the users pen and the PDA each time the PDA is loaded into its docking slot located at a nursing station, its software clock is synchronized with the clock of the master library [represents the value stored in a database], w/col. 11, lines 12-27, shows health record information is accessed from the master library and modified with up-to-date medical diagnostic data by means of the PDA; here, the PCS interfaces with the PDA to register and track patient characteristics and transmits the results back to the master library, which is updated with medical diagnostic data, in this case, the PCS serves as the transducer since it facilitates the out-sourcing of health care, and the patient therefore has access to the diagnosis data since this data is stored in the master library and can be retrieved through the PCS). Ballantyne et al discloses this limitation in an analogous art for the purpose of showing that patient diagnosis data can be accessed in an electronic patient care station environment.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to incorporate biomedical expertise message for clinical diagnosis into an interactive digital television set-top apparatus with the motivation of allowing targeted messaging in a biomedical environment.

Alexander combined with Ballantyne et al does not expressly disclose that the sensor is for measuring or monitoring an organic material of the patient coupled to the sensor transducer that senses the organic material, such that the sensor transducer

generates therefrom the personal biological sensor signal for enabling such patient to be diagnosed via the biomedical expertise message that is adapted to the personal biological sensor signal measurement or monitoring of the organic material as generated by the sensor transducer.

However, Peifer et al disclose that medical devices within the system can include blood pressure devices, thermometers, pulse oximetry devices, electrocardiograms (EKGs)... (col 6: lines 37-40) and the central monitoring station can then process the information to determine which patient caused the information to be sent, the type of diagnostic measurement comprised in the information, and the diagnostic measurement represented by the information. (col 3: lines 62-65)

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Alexander combined with Ballantyne et al to include monitoring a patient's organic material and using that information to cause a diagnoses of the patient. Alexander and Ballantyne et al would be motivated to combine to be able to better care for the patients and respond to patient's changing medical conditions as monitored by the medical devices.

**As per claim 22,** neither Alexander nor Ballantyne et al disclose that the sensor comprises a DNA or protein probe, whereby the promotion video stream comprises a tele-medicine application associated with sensed DNA or protein, but Alexander does disclose sensing viewer characteristics through a profile program which collects user profile data in col. 31 lines 9-14.

However, Peifer et al discloses:

The sensor comprises a DNA or protein probe, whereby the promotion video stream comprises a tele-medicine application associated with sensed DNA or protein, (Col. 3, lines 35-46, shows a telemedicine system that obtains medical measurement data from a patient and sends this information over a network such as a Community Access Television (CATV) network, in this case, the sensed DNA or protein data is obvious with the telemedicine data since the telemedicine measurement includes medical measurement data, and sensed DNA or protein data is medical measurement data). Peifer et al discloses this limitation in an analogous art at the time of the applicant's invention to obtain medical measurement data from the patient, and to transmit these measurements over a television network.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have a sensor to comprise a DNA or protein probe, whereby the promotion video stream comprises a tele-medicine application associated with sensed DNA or protein with the motivation of using tele-medical applications to target advertisements.

**As per claim 25,** neither Alexander nor Ballantyne et al disclose that the signal is generated by a DNA or protein probe, whereby the promotion video stream comprises a tele-medicine application associated with sensed DNA or protein, but Alexander does disclose sensing viewer characteristics through a profile program which collects user profile data in col. 31 lines 9-14.

However, Peifer et al discloses:

the signal is generated by a DNA or protein probe, whereby the promotion video stream comprises a tele-medicine application associated with sensed DNA or protein, (Col. 3, lines 35-46, shows a telemedicine system that obtains medical measurement data from a patient and sends this information over a network such as a Community Access Television (CATV) network, in this case, the sensed DNA or protein data is obvious with the telemedicine data since the telemedicine measurement includes medical measurement data, and sensed DNA or protein data is medical measurement data). Peifer et al discloses this limitation in an analogous art at the time of the applicant's invention to obtain medical measurement data from the patient, and to transmit these measurements over a television network.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have a sensor to comprise a DNA or protein probe, whereby the promotion video stream comprises a tele-medicine application associated with sensed DNA or protein with the motivation of using tele-medical applications to target advertisements.

Claims 23 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander et al (US 6,177,931) in view of Ballantyne et al, (US 5,867,821), in further view of (US 5,987,519) to Peifer et al, and further in view of Hill et al (US 5,857,155).

**As per claim 23,** Ballantyne et al disclose that the patient can be tracked through the unique address ID of the bedside PCS and the uniqueness of the patient's

health card. Therefore the system always knows the exact location of each patient at all times even if the patient is moved. (col 11: lines 2-7) However, none of Alexander, Ballantyne et al or Peifer et al expressly disclose the sensor comprises a GPS location device, whereby the promotion video stream comprises a vehicular or mobile application associated with sensed location, but Alexander does sensing viewer characteristics through a profile program which collects user profile data in col. 31 lines 9-14.

However, Hill et al discloses:

the sensor comprises a GPS location device, whereby the promotion video stream comprises a vehicular or mobile application associated with sensed location, (Col. 2, lines 31-38, shows use of geographic information from a GPS satellite to enhance the efficiency and accuracy of targeted messaging). Hill et al discloses this limitation in an analogous art for the purpose of showing that targeted messaging can result from the input of geographic information.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention for the sensor to comprise a GPS location device, whereby the promotion video stream comprises a vehicular or mobile application associated with sensed location with the motivation of using gps applications to target advertisements.

**As per claim 26,** that the patient can be tracked through the unique address ID of the bedside PCS and the uniqueness of the patient's health card. Therefore the system always knows the exact location of each patient at all times even if the patient is moved. (col 11: lines 2-7) However, none of Alexander, Ballantyne et al or Peifer et al

disclose the signal is generated by a GPS location device, whereby the promotion video stream comprises a vehicular or mobile application associated with sensed location, but Alexander does sensing viewer characteristics through a profile program which collects user profile data in col. 31 lines 9-14.

However, Hill et al discloses:

the signal is generated by a GPS location device, whereby the promotion video stream comprises a vehicular or mobile application associated with sensed location, (Col. 2, lines 31-38, shows use of geographic information from a GPS satellite to enhance the efficiency and accuracy of targeted messaging). Hill et al discloses this limitation in an analogous art for the purpose of showing that targeted messaging can result from the input of geographic information.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention for the sensor to comprise a GPS location device, whereby the promotion video stream comprises a vehicular or mobile application associated with sensed location with the motivation of using gps applications to target advertisements.

#### **(10) Response to Argument**

With regards to claim 21-22 and 24-25 the Applicant alleges that the Examiner unreasonably combined the Alexander reference with the Ballantyne reference to reject the claims under 35 U.S.C. §103. The Examiner respectfully disagrees. Even though the Applicant's invention has biomedical elements included in the claims, the main focus of the Applicant's invention is directed to providing patients with targeted promotion video streams to set-top apparatus according to the patients' data.

In this case, Alexander et al disclose a method of delivering targeted advertisement video messages to customers via a set-up box according to the customer's profile and preference (Abstract).

Ballantyne et al disclose a Patient Care Station (PCS) that is capable of interfacing with specific external health care monitoring equipment to register and track certain care monitoring equipment to register and track certain patient characteristics as temperature, pulse rate, etc. (col 11: lines 18-20) Ballantyne et al further disclose that the PCS is connected to plurality of networks where the normal CATV signals are received by the PCS through the CATV tuner/converter (col 10: lines 30-31) and a complementary RF tuner/converter exists for the Video On Demand (VOD) requests (col 10: lines 42-43) and from Fig 5 it can be seen that a regular coaxial network is provided for the connection to the PCS to serve CATV and VOD. Ballantyne et al also disclose that if the service is simple analog cable programming supplied by the local cable companies it is assigned a dedicated channel as it would appear in local TV guides. (col 5: lines 28-30)

Peifer et al also disclose a Patient Monitoring Station (PMS) that is similar to Ballantyne et al's PCS in that both PCS and PMS are connected to a network to provide patients with monitoring and entertainment services. Peifer et al specifically states that medical devices can be connected to the PMS for monitoring services, devices include blood pressure devices, thermometers, pulse oximetry devices, electrocardiograms (EKGs), scales and stethoscopes. Peifer et al further disclose that the Patient

Monitoring Station is also connected to Community Access Television (CATV) network.  
(page 3: lines 46-47)

Therefore it is clear that Alexander et al, Ballantyne et al and Peifer et al are all directed to the analogous art of delivering targeted video messages to customers. The elements of Alexander et al, Ballantyne et al and Peifer et al when combined still perform the same functions as disclosed in the individual inventions, and no unexpected results are obtained. The set-up box as disclosed by Alexander et al will function the same as an apparatus in delivering the messages, and the patient care and monitor stations disclosed in Ballantyne et al and Peifer et al will still perform the same functions as disclosed in monitoring the patient's biological signals and targeting video messages according to those signals and delivering said messages through a set-up box apparatus.

Therefore, the combination of Alexander et al, Ballantyne et al and Peifer et al is proper under the KSR test in that all the elements are well known in the message delivering arts and the elements when combined still perform the same functions as originally disclosed to arrive at a predictable result, which is delivering targeted video messages to customers.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does

not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

With respect to claims 23 and 26, the Applicant argues based on the same reasoning as claims 21-22 and 24-25, as such the explanation provided for the Applicant's arguments for the noted claims also apply.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Rutao Wu



Conferees:

  
Vincent Millin – Appeal Specialist

Igor Borissov

